

Appl. No. 10/709,612
Amdt. dated January 23, 2006
Reply to Office action of November 01, 2005

REMARKS

The drawings are objected to because in figure 2, it is believed that RB1 should be RB₁

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Applicant has amended Fig.2 to change RB1 to RBL. No new matter is entered. Please see the next remark for more information concerning the other amendments made to the Fig.2.

- 10 The drawings are objected to as failing to comply with 37 CFR 1.84p5 because they include the following reference characters not mentioned in the description: Fig.2-RB_h, Fig.4-RB₃ and RB₄, Fig.5-RB₃, Fig.5-RB₃ and RB₄, Fig.7-RB₃ and RB₄, Fig.8-SI₅, RB₅, SI₆, RB₆, Fig.10-98 and 100

- 15 Applicant has found that many of the reference symbols utilized in the drawings and the specification do not match. Reference symbols in various paragraphs of the specifications are therefore modified to match the corresponding figure. This includes making subscripts match between the specification and the figures.

- 20 Applicant has also found the symbol "l" and "h" in Fig. 2 are very confusing. This is in particular due to the fact that "l" (lower case of L) is very similar with the number 1. Therefore, applicant has amended the symbols in the Fig. 2 as well as in the spec by changing "l" and "h" to "L" and "H", respectively.

- 25 Applicant also states that in Fig.5, Fig.6, and Fig.7 the components are modified by primes to further describe the generation of the biases B₅, B₆, etc. However, the prime symbol "'" is not intended to mean that the component is a different thing. That is, e.g., B₅' and B₅ are the same thing, Q₈' and Q₈ are the same things, and so on. Therefore,

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applicant has amended Fig.5, Fig.6, and Fig.7 to remove the symbols "" and "" and "" and the corresponding paragraphs of the specification have also been amended.

Applicant has amended the following paragraphs of the specification to specifically
5 mention the above indicated characters:

Paragraph [0006] is amended to state that the high band low noise amplifier 16H includes an internal resistor RBH. No new matter is entered as this was already shown in original Fig.2.

10 Paragraph [0028] is amended to state that the transistors Q₄ and Q₅ are biased by the bias B₅ through the resistor RB₃. The transistors Q₉ and Q₁₀ are biased by the bias B₈ through the resistor RB₄. No new matter is entered as this was already shown in original Fig.4.

15 Paragraph [0029] is amended to state that The transistors Q₄ and Q₅ are biased by the bias B₅ through the resistor RB₃. No new matter is entered as this was already shown in original Fig.5.

Paragraph [0033] is amended to state that the input ports 48, 50 receive input signals SI₅ and SI₆, and are coupled to internal resistors RB₅ and RB₆. No new matter is entered as this was already shown in original Fig.8.

20 Applicant has also amended Fig.10 to delete the unmentioned reference numerals 100 and 98. No new matter is entered.

The disclosure is objected to because examiner's belief that on page 8, paragraph 0029, line 14 "Q4-Q9" should be -Q4-Q10--

25 Applicant has amended paragraph [0028] to change "Q4-Q9" to "Q4-Q10" as indicated by Examiner. No new matter is entered.

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Claims 16, 19 and 20 are objected to because line 2 of each claim there is a space needed between "15" and "wherein"

Applicant has amended claims 16, 19, and 20 to add a space between "15" and
5 "wherein" as indicated by Examiner. No new matter is entered.

Claims 1-3, 7 and 10-13 are rejected under 35 USC 102e as being anticipated by US Patent No. 6,710,662 to Wang

10 Concerning claim 1, applicant asserts claim 1 should not be found anticipated by Wang because Wang does not teach "each input amplifier comprising a receiving port for receiving a corresponding input signal in the band mode", as is claimed in original claim 1.

Wang shows in Fig.3, Fig4, and Fig.5 different embodiments of a power amplifier.
15 As shown in the figures and also described in the specification (col 3, lines 29-44), "The gate of the transistor 31 is connected via capacitor C1 to a radio frequency input terminal RFIN. The gate of the transistor 32 is connected via capacitor C2 to radio frequency input terminal RFIN. The gate of the transistor 33 is connected via capacitor C3 to the radio frequency input terminal RFIN." Applicant points out that having the gate of each
20 transistor 31, 32, 33 being coupled to the same radio frequency input terminal RFIN is not equivalent to "each input amplifier comprising a receiving port for receiving a corresponding input signal in the band mode", as is stated in claim 1.

For at least this reason, applicant asserts that claim 1 should not be found anticipated by the teachings of Wang. Furthermore, applicant asserts that the present invention as
25 claimed in claim 1 should not be found obvious given the teachings of Wang because Wang's design requires that the gate of each amplifier 31, 32, 33 be coupled to the same radio frequency input terminal RFIN in order to adjust the power amplification of the input signal RFIN. This requirement is described by Wang in col 3, lines 57-62, "the bias

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voltages applied through the bias terminals Bias A, Bias B, Bias C control the operations of the amplifiers 31-33 to be turned on/off respectively, acting as the control bit for power control." If the amplifiers 31-33 were each coupled to a corresponding input signal in the band mode as is claimed in claim 1 of the present invention then the design of Wang
5 would not be able to function because there would be no way to control the amplification power. Reconsideration of original claim 1 is respectfully requested. Because claims 2-3, and 7-11 are dependent on claim 1, if claim 1 is found to be allowable, so too should claims 2-3, an 7-11.

10 Concerning claim 12, applicant asserts claim 12 should not be found anticipated by Wang because Wang does not teach the following steps:

- utilizing the plurality of input amplifiers to respectively receive a plurality of input signals corresponding to the plurality of band modes;
- utilizing the output amplifier to process and output the plurality of input
15 signals.

As described in the above remark concerning the rejected of claim 1, Wang teaches coupling the gates of the amplifiers to the same radio frequency input terminal RFIN in order to adjust the amplification power. Applicants points our that this teaching of Wang is not equivalent to "utilizing the plurality of input amplifiers to respectively receive a
20 plurality of input signals corresponding to the plurality of band modes", as is claimed in claim 12 of the present invention. It also follows that Wang does not teach the step of "utilizing the output amplifier to process and output the plurality of input signals" as there is only a single radio frequency input terminal RFIN according to Wang (i.e., not a plurality of band modes).

25 For at least these reasons, applicant asserts that the method claim 12 should not be found anticipated by the teachings of Wang. Similar to the above remark for claim 1, applicant further asserts that the present invention as claimed in claim 12 should not be found obvious given the teachings of Wang because Wang's design requires that the gate

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of each amplifier 31, 32, 33 be coupled to the same radio frequency input terminal RFIN in order to adjust the amplification power. Therefore, Wang teaches against "utilizing the plurality of input amplifiers to respectively receive a plurality of input signals corresponding to the plurality of band modes", as is claimed in claim 12 of the present invention. Reconsideration of original claim 12 is respectfully requested. Because claims 13-14 are dependent on claim 12, if claim 12 is found to be allowable, so too should claims 13-14.

Claims 8, 9 and 14 are rejected under 35 USC 103a as being unpatentable over US patent No. 6,710,662 to Wang

With regard to the above remarks concerning the rejection of independent claims 1 and 12, applicant asserts that Wang does not teach the limitation "plurality of input amplifiers to respectively receive a plurality of input signals corresponding to the plurality of band modes", as is claimed in both claims 1 and 12, and in fact teaches against this configuration. (See remarks above.) For at least these reasons, applicant asserts that the present invention as claimed in claims 1 and 12 would not be rendered obvious to a person skilled in the art given the teachings of Wang without further inventive process. Applicant therefore asserts that the present invention as claimed in dependent claims 8, 9, and 14 should also not be unpatentable over Wang. Reconsideration of claims 8, 9, and 14 is respectfully requested.

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- 10 Note: Please leave a message in my voice mail if you need to talk to me. (The time in D.C. is 13 hours behind the Taiwan time, i.e. 9 AM in D.C. = 10 PM in Taiwan.)